

ATTACHMENT B
California Energy Commission
Air Quality Self-Certification Checklist for Simple-Cycle Gas Turbine Generation Units

License Application for:

☐ New Emissions Unit(s) at a New Stationary Source

☐ New Emissions Unit(s) at an Existing Stationary Source

DISTRICT: South Coast	DATE: May 21, 2001
------------------------------	---------------------------

FACILITY INFORMATION

License to be Issued to: La Jolla Energy Development		
Mailing Address: 2882- C Walnut Avenue		
City: Tustin	State: CA	Zip Code: 92780
Address Where Equipment Will be Operated: 5640 South Fairfax Avenue		
City: Los Angeles	State: CA	Zip Code: 90065
Nature of Business: Electric Power Generating Facility	SIC Code: 9411	
Facility Contact Person: Steve Rusch	Phone Number: (323) 298-2223	
	Fax Number: (323) 298-9375	
	Email: srusch@stockerresources.com	
Application Information Contact Person (if different from above): <i>same as above</i>	Phone Number:	
	Fax Number:	
	Email:	
Will the facility be under contract to sell its power within California? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, state the entity contracted with and the percentage of power that will be sold: _____		
What is the maximum total electrical output of the new power generation equipment at International Standards Organization (ISO) conditions? 29.2 MW		
Estimated construction start date: 06 / 01 / 2001 Estimated completion date: 09 / 01 / 2001		
Length of commissioning period (from date of initial startup): Three months		

NEW EQUIPMENT INFORMATION

TURBINE #1	If multiple identical units, indicate number of units of this type: Two		
		Nominal: 27.35 MW	Maximum: 29.21 MW
	Manufacturer: General Electric		
	Model: LM2500		
	Maximum Heat Input (based on HHV of fuel): 249.24		MMBtu/hr
TURBINE #2	If multiple identical units, indicate number of units of this type: _____		
		MW	MW
	Manufacturer:		
	Model:		
	Maximum Heat Input (based on HHV of fuel):		MMBtu/hr

Suggested Best Available Control Technology (BACT)		Emission Level	Control Technology
	NOx	5 ppmvd @ 15% O ₂ (1-hr rolling average)	Selective catalytic reduction or other equivalent control device
	CO	6 ppmvd @ 15% O ₂ (1-hr rolling average)	Oxidation catalyst or equivalent control device
	VOC	2 ppmvd @ 15% O ₂ (1-hr rolling average)	Oxidation catalyst or equivalent control device
	PM10	Emission limit corresponding to natural gas firing (PUC quality natural gas)	Natural gas firing (PUC quality natural gas)
	SO2	Emission limit corresponding to natural gas firing (PUC quality natural gas)	Natural gas firing (PUC quality natural gas)
	If applicable, NH3	10 ppmvd @ 15% O ₂ (1-hr rolling average)	

Selective Catalytic Reduction Information, if applicable	If not indicated, please specify units of measurement:			
	Ammonia Storage Tank(s):	Tank type: Steel Pressure Tank		
		Number of tanks: One		
		Tank size: 5,000 Gallons		
		Reactant type: [] Anhydrous ammonia [X] Aqueous ammonia [] Urea If aqueous ammonia, indicate ammonia concentration: _____		
		Turnover rate:		
	SCR Manufacturer:	Engelhard		
	SCR Make:	Engelhard		
	SCR Model:			
	Catalyst dimensions:	Length: 30 ft	Width: 8.79 ft	Height: 3 ft
	Pressure drop across SCR unit: 1.5 in w.c.			
	Pressure drop across ammonia injection grid: Less than 0.5 in wg			
	Space velocity (gas flow rate/catalyst volume): 11,000 lbs./hr.			
	Area velocity (gas flow rate/wetted catalyst surface area): Not Available			

NEW EQUIPMENT INFORMATION (continued)

Selective Catalytic Reduction Information, if applicable (continued)	Manufacturer's guarantee:	Control efficiency: 90.0 %	Catalyst life: 5 yrs
	Ammonia injection rate: 57.0 lbs./hr.		
	NOx concentration into SCR unit: 25 ppmvd @ 15% O2		
	SO2 oxidation rate:	SO3 emissions:	
	Operating temperature range of catalyst: 690 – 720 °F °F		
	Temperature at which ammonia injection will begin: At Operating Temperature °F		

Oxidation Catalyst Information, if applicable	If not indicated, please specify units of measurement:			
	Manufacturer:	Engelhard		
	Make:			
	Model:			
	Catalyst dimensions:	Length: ft	Width: ft	Height: ft
	Pressure drop across catalyst:			
	Manufacturer's guarantee:	CO control efficiency: 90 %	Catalyst life: 3 yrs	
		VOC control efficiency: 65 %		
	Space velocity (gas flow rate/catalyst volume): 11,000 lbs./hr.			
	Area velocity (gas flow rate/wetted catalyst surface area): Not Available			
	Catalyst cell density (cells per square inch): 100 to 150 cpi			
	CO concentration into catalyst:			40.0 ppmvd @ 15% O2
VOC concentration into catalyst:			4.0 ppmvd @ 15% O2	
Operating temperature range of catalyst: 690 – 860 °F			°F	

Fuel Data	Fuel Type: Natural gas		Specify sulfur content if other than 5 gr/100 scf	
	Higher Heating Value: 1049.99	Btu/scf	Sulfur Content: < 5	gr/100 scf
	Maximum Fuel Consumption Rate: 0.2374			MMscf/hr
	Exhaust Data:	Flow: 228,410 wacf/min	M/sec or m ³ /sec or acfm	

On-line Normalized Emission Rate	(If corrected to other than 15% O2, indicate at right)			3 %O ₂
	Specify by units listed below or indicate other values and units at right:			
	NOX	ppmvd on a 1-hr rolling avg.	lb/MMBtu	20.23
	CO	ppmvd on a 1-hr rolling avg.	lb/MMBtu	9.85
	VOC	ppmvd on a 1-hr rolling avg.	lb/MMBtu	1.97
	PM10	ppmvd on a 1-hr rolling avg.	lb/MMBtu	6.93
	SO ₂	ppmvd on a 1-hr rolling avg.	lb/MMBtu	0.63
	If applicable, NH ₃	ppmvd on a 1-hr rolling avg.	lb/MMBtu	7.48

NEW EQUIPMENT INFORMATION (continued)

On-line Mass Emission Rate (each turbine)		Hourly [lbs/hr]	Daily [lbs/day]	Quarterly [lbs/qtr]	Annual [tons/yr]
	NOX	4.15	102.6	9,080	18.16
	CO	2.02	50.0	4,421	8.85
	VOC	0.40	10.0	884	1.77
	PM10	1.54	38.15	3,377	6.76
	SO ₂	0.14	3.47	307	0.62
	If applicable, NH3	1.54	37.9	3,356	6.71
Startup and Shutdown Mass Emission Rate (each turbine)		Startup Emissions Hourly [lbs/hr]		Shutdown Emissions Hourly [lbs/hr]	
	NOX	20.73		N/A	
	CO	20.19		N/A	
	VOC	1.15		N/A	
	PM10	1.54		N/A	
	SO ₂	0.14		N/A	
Commissioning Period Mass Emission Rate (each turbine)		Hourly [lbs/hr]		Daily [lbs/day]	
	NOx	24.25		N/A	
	CO	25.97		N/A	
	VOC	2.02		N/A	
	PM10	1.69		N/A	
	SO ₂	0.15		N/A	

Operating Parameters	Operating Hours:	[hrs/day]	[hrs/qtr]	[hrs/yr]
	Startup Data:	Number of startups per day: N/A		
		Number of startups per year: N/A		
		Startup duration: N/A		
	Shutdown Data:	Number of shutdowns per day: N/A		
		Number of shutdowns per year: N/A		
		Shutdown duration: N/A		

NEW EQUIPMENT INFORMATION (continued)

Facility Annual Emissions and Emissions to be Offset		Facility Annual Emissions [tons/yr]	Emissions That Need to be Offset				
			Q1 [lbs/qtr]	Q2 [lbs/qtr]	Q3 [lbs/qtr]	Q4 [lbs/qtr]	Annual [tons/yr]
	NOx	36.32	18,160	18,160	18,160	18,160	18,160
	CO	17.69	N/A	N/A	N/A	N/A	N/A
	VOC	3.54	N/A	N/A	N/A	N/A	N/A
	PM10	13.51	4.05	4.05	4.05	4.05	4.05
	SO ₂	1.23	N/A	N/A	N/A	N/A	N/A

Offsets to be Provided (If Necessary)		Offset Ratio	Offsets Required				Source of Offsets
			Q1 [lbs/qtr]	Q2 [lbs/qtr]	Q3 [lbs/qtr]	Q4 [lbs/qtr]	
	NOx		18,160	18,160	18,160	18,160	[] State bank* [] District bank [] Other, specify: _____
	CO		N/A	N/A	N/A	N/A	[] State bank [] District bank [] Other, specify: _____
	VOC		N/A	N/A	N/A	N/A	[] State bank [] District bank [] Other, specify: _____
	PM10		4,052	4,052	4,052	4,052	[] State bank [] District bank [] Other, specify: _____
	SO ₂		N/A	N/A	N/A	N/A	[] State bank [] District bank [] Other, specify: _____

Monitoring and Reporting	What is the make/model of the continuous emissions monitoring system (CEMS), if known? Make: Not Known Model: _____
	The following parameters will be continuously monitored: <input checked="" type="checkbox"/> NOx <input checked="" type="checkbox"/> CO <input checked="" type="checkbox"/> O ₂ <input checked="" type="checkbox"/> Fuel flow rate <input type="checkbox"/> Ammonia injection rate <input type="checkbox"/> Other, please specify: _____

Will the CEMS be used to measure both on-line and startup/shutdown emissions?
☒ Yes ☐ No

*Note: The initial amount of NOx offsets that can be acquired from the State bank is 21 tons/yr x the applicable offset ratio for each 50 MW of new generating capacity.

ADDITIONAL INFORMATION

1. **Facility Location:** [] Urban (area of dense population) [**X**] Rural (area of sparse population)

Will the facility be located within 1,000 feet of a school? [] Yes [**X**] No

(Note: Per Section 42301.9 of the California Health and Safety Code, a "school" means any public or private school used for purposes of the education of more than 12 children in kindergarten or any of grades 1 to 12, inclusive, but does not include any private school in which education is primarily conducted in private homes.)

2. **Nearest Receptor:**

Distance to nearest residence **2,200 feet**

Distance to nearest business **6,600 feet**

Air Dispersion Modeling Input Data

3. **Stack Parameters:**

Height **70** feet Inside diameter **9.5** inches

Is a rain cap present on the exhaust stack? [] Yes [**X**] No

Direction of exhaust from structure or device: [**X**] Vertical [] Horizontal

Building Dimension Data for Downwash Calculations:

- a) Building Height **6 meters**
- b) Minimum horizontal building dimension **15.2 meter**
- c) Maximum horizontal building dimension **32 meter**

4. Was an ambient air quality impact analysis required for this project? [] Yes [] No

If Yes, was an ambient air quality impact analysis conducted as required by District rules? [] Yes [] No

If Yes, please attach the analysis and provide an electronic version on disk or CD.

5. Was a health risk assessment required for this project? [**X**] Yes [] No

If Yes, was a health risk assessment conducted as required by District rules? [**X**] Yes [] No

If Yes, please attach the analysis and provide an electronic version on disk or CD.

6. Please attach a site map for the project.

CERTIFICATION

Based on information and belief formed after reasonable inquiry, I certify that the statements and information in and attached to this document are, true, accurate, and complete.

Steve Wilburn

Responsible Official (Please Print Name)

Signature of Responsible Official

Date